

REMARKS

By the foregoing amendments, claims 1, 10 and 11 have been amended. Thus, claims 1-3, 6, 7, 9-12, 15, 16, 18 and 23-26 remain in the application. Claims 3 and 12 are withdrawn from consideration but are dependent claims and are believed to be properly allowable in the present application.

Claims 1, 6, 9-11, 15, 16, 18 and 23-26 stand rejected in the outstanding Office Action under 35 U.S.C. §102(b) as being clearly anticipated by GOMED (DE 299 20 434 U1) as stated on pages 2-4 of the Office Action.

Claims 1, 6, 7, 9-11, 15, 16, 18, 23 and 24 are rejected in the Office Action under 35 U.S.C. §102(b) as being clearly anticipated by Allen et al., U.S. 5,653,767, as stated on pages 4 and 5 of the Office Action.

Claims 1, 2, 6, 7, 9-11, 15, 16, 18 and 23-26 are rejected under 35 U.S.C. §102(b) as being clearly anticipated by Allen, U.S. 5,443,528, as set forth on pages 5 and 6 of the Office Action.

These rejections are hereby traversed and reconsideration thereof is respectfully requested in view of the above amendments to the claims and Applicants' remarks set forth below.

The improved prosthetic foot of the present invention as recited in claim 1 as amended includes a continuously longitudinally extending foot keel having longitudinally aligned forefoot, raised midfoot and hindfoot portions. A resilient, monolithically formed shank extends upwardly from the foot keel by way of an anterior facing continuous convexly curved surface which extends over at least most of the length of the shank and has increasing radius of curvature defining an ankle joint area and a curvilinear prosthetic part of a leg extending substantially upward

above human ankle joint height and the ankle joint area, the shank having a proximal portion for connection with a lower extremity prosthetic structure secured to a person's residual limb. The ankle joint area and the prosthetic part of a leg formed by the shank are anterior facing convexly curved and provide means for sagittal, anterior dorsiflexion and posterior plantarflexion motion capabilities in response to a ground reaction force created in a person's gait in the prosthetic foot. The shank and at least the hindfoot portion of the foot keel are monolithically formed. Example embodiments of the prosthetic foot are shown in Figures 46-54 of the application drawings. The claimed prosthetic foot and the similarly defined prosthesis of claim 10 as amended are not anticipated by the aforementioned references relied upon in each of the grounds of rejection of the application claims.

A translation of portions of GOMED is attached as Exhibit A. As seen from the translation, GOMED discloses a prosthetic foot for connection to an artificial leg. The foot uses a rear e-shaped spiral spring connected at the lower portion to front foot spring 3 with its upper free end 8 (at the top of the rear e-shape) being bent inward for connection with the lower portion 16 of connector 4 for connection to the artificial leg. The prosthetic foot is reportedly simpler and less expensive to produce than a prior art foot having a rear c-shaped spring associated with a pneumatic cylinder and air pump, while allowing a certain rotation of the foot relative to the lower leg. The rear e-shape spiral spring of GOMED does not have a height which extends substantially above human ankle joint height or define a lower prosthetic part of a leg. The lower portion of the e-shaped spiral spring of GOMED does not curve upward to the middle portion with increasing radius of curvature, but rather decreasing radius of curvature. The rear e-shape spiral spring 5 of GOMED, like the

c-shaped ankle of the prior art, provides essentially vertical spring motion in use. It does not provide means for sagittal, anterior dorsiflexion and posterior plantarflexion motion in response to a ground reaction force created in a person's gait in the prosthetic foot as is the case in Applicants' prosthetic foot with the shank which extends substantially upward above human ankle joint height and the ankle joint area.

Allen, et al., U.S. 5,653,767, in Figures 1 and 6, employs toe sections 38 dovetailed longitudinally between, not longitudinally aligned with, heel sections 26 and forming respective posterior arcs 46 and anterior arcs 44 joined at connector 12 for attachment to an ankle joint, see column 5, lines 61-63. The reference does not teach the use of a continuously longitudinally extending foot keel having longitudinally aligned forefoot, raised midfoot and hindfoot portions as in Applicants invention. A resilient, monolithically formed shank which extends above human ankle joint height and an ankle joint area according to the invention is also not disclosed by Allen et al.

The patent to Allen, U.S. 5,443,528, is for a coil spring prosthetic foot which may be connected to a prosthetic ankle. See Figure 4a, for example, wherein nut 401 is provided for connecting the prosthetic foot to a fixture on an ankle as indicated in column 8, lines 14-18. Allen provides a foot center coil by means of the anterior coil spring sections 103 of posterior heel extensions 106 and the posterior coil spring sections 104 of anterior foot extension sections 116. A prosthetic foot of Allen does not include a continuously longitudinally extending foot keel having longitudinally aligned forefoot, raised midfoot and hindfoot portions as in Applicants' invention. Further, Allen does not teach or suggest the use of a shank which extends upward

above human ankle joint height and the ankle joint area of the prosthetic foot to provide means for sagittal, anterior dorsiflexion and posterior plantarflexion motion capabilities in response to a ground reaction force created in a person's gait in the prosthetic foot as disclosed and claimed by Applicants.

In view of the above amendments and remarks, it is believed that the application claims as amended patentably define over the cited references. Accordingly, reconsideration and allowance of the claims as amended is requested.

A Request for Continued Examination is filed herewith to ensure consideration of the above amendment to the claims.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment to the undersigned's Deposit Account, Deposit Account No. 01-2135 (Case No. 183.39735PA7).

Respectfully submitted,

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Attachment
RJS:kmh